

presumed to be related to his chemotherapy; and died of neutropaenic sepsis.

Conclusion: Our study shows VMAT chemoradiotherapy delivers excellent local control in the treatment of advanced anal cancers. Treatment was well tolerated and all patients completed the prescribed course of radiotherapy. More data is needed and longer term follow-up to confirm clinical outcomes.

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Predictive factors of tumour response after neoadjuvant chemoradiation for rectal cancer

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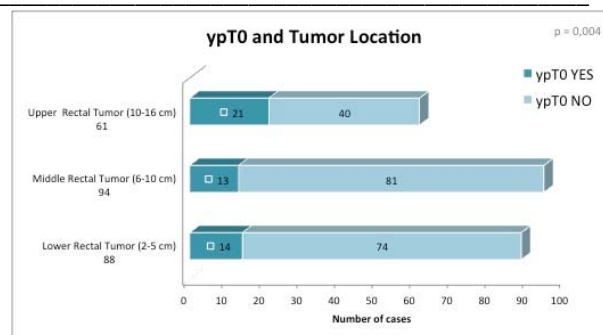
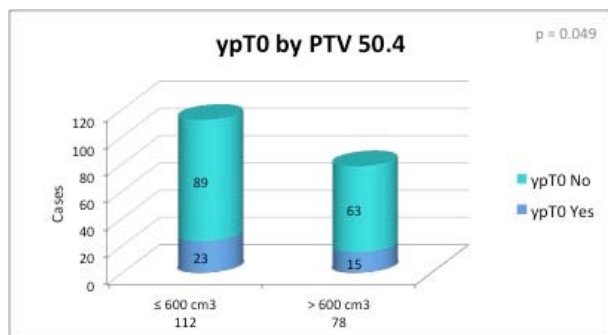
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Purpose or Objective: Neoadjuvant chemoradiation followed by surgery is the standard of care for locally advanced rectal cancer (LARC).

The aim of this study was to identify predictive factors of tumor responsiveness.

Material and Methods: A retrospective study was carried out on a series of 243 patients with histologically proven LARC treated between 2000 and 2014 by preoperative chemoradiation before total mesorectal excision. The radiation dose was 45-50.4Gy with fluoropyrimidine-based chemotherapy regimens. The influence of tumor characteristics and treatment regimen in tumor downstaging and regression grade (TRG) was tested using Mandard scoring system on surgical specimens.

Results: Median age (range 33-85) was 67 years. The predominant cancer stages were stage II (38%) and stage IIIB (56%). Tumor downstaging occurred in 167 patients (69%), including 48 (19.8%) with ypT0 (documented T0 at surgery) and 166 (68.3%) with a satisfactory tumor regression grade, defined as TRG1-3. Identified predictive factors for pathologic complete response (pCR) included a planning target volume receiving 50.4Gy (PTV 50.4) and tumor location: PTV 50.4 ≤ 600cc (p=0.049) and upper rectal tumor location (p=0.004) were associated with higher pCR by univariate analysis. Multivariate analysis revealed a positive association of the TRG1-3 rate with longer intervals from chemoradiation to surgery (p=0.008): 5.4% at ≤ 5 weeks, 43.4% at 6-8 weeks and 51.2% at ≥ 9 weeks. Actuarial 3 and 5 years survivals were 95% and 90% for the group as a whole. Among ypT0 cases, the overall survival and relapse-free survival were 97% and 94%, respectively with a median follow-up of 49.4 months, significantly different compared with the remaining group 89% and 74% respectively. There were no treatment-associated fatalities. Thirty-two of the 243 patients (13%) experienced Grade III or IV toxicities (proctitis (8.6%), epithelitis (3.7%) and neutropenia (0.8%) during preoperative treatment.



Conclusion: PTV50.4Gy and tumor location were identified as predictive factors of pCR for LARC treated with preoperative chemoradiation. PTV50.4 ≤ 600cc and upper rectal tumors are more likely to develop complete responses.

Delay in surgery was identified as a favourable predictive factor for TRG1-3. Innovative strategies incorporating further time extension of the surgical interval can be safely explored.

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Is watch and wait policy after chemoradiotherapy for rectal cancer detrimental to outcome?

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Purpose or Objective: Neo-adjuvant chemoradiotherapy (CRT) is considered a standard approach for locally advanced rectal cancer. In this study we assessed the outcomes of patients who declined surgery following standard CRT in comparison to those who received surgery.

Material and Methods: We evaluated all patients who received CRT for rectal cancer between February 2012 and December 2014 at our centre. All patients received 50.4Gy in 1.8Gy fractions with concurrent capecitabine chemotherapy (825mg/m² BD) daily throughout treatment. 61 patients received surgery (total mesorectal excision), performed 8-12 weeks after completion of CRT (Group A). 12 patients received CRT alone and declined definitive surgery (Group B). These patients were monitored on a watch and wait approach. The primary end point of this study was disease free survival (DFS), with local recurrence being a secondary end point.

Results: Group A comprised of 19/61 (31%) females and 42/61 (69%) male, median age of this group was 66 years. 59/61 (96.7%) patients showed an imaging response (defined as any improvement in disease) following CRT. Group B comprised of 6/12 (50%) male and female, median age of this group was 75 years. 9/12 (75%) patients showed an imaging response following CRT. Group A showed a local recurrence rate of 5/61 (8%) and a distant recurrence rate of 9/61 (15%). Group B showed a recurrence rate of 4/12 (33%), all of which were local recurrences. There was no significant difference in overall recurrence rates between the two groups (t = 0.90; p = 0.37). The disease free survival, using the Kaplan-Meier methodology, for Group A was 88% at one year and 80% at two years. For Group B it was 91% at one year and 66% at two years; the difference between the two groups being non-significant (log rank chi-square 1.35; p=0.245).

Conclusion: This study suggests that a watch and wait approach after CRT is associated with increased risk of local relapse and a shorter disease free survival interval. The difference was not significant which might be due to small numbers in the watch and wait group. We continue to advocate surgery as the standard approach post CRT and await the results of prospective studies evaluating a watch and wait approach, as well as the use of imaging biomarkers to enable better prediction of outcome.